

REMARKS/ARGUMENTS

Claims 1, 2, 7-9, and 14-16 are pending. Claims 1, 8 and 16 are independent claims and now refer to a process for obtaining fresh internal organs or adnexa from live fish, which is described in the specification on page 2, lines 15 to 19. Treating living fish with an alkaline solution, followed by washing and/or neutralization while the fish is alive is described in the specification on page 3, lines 24 to 26 and the Examples. Accordingly, the Applicants do not believe that any new matter has been introduced. Favorable consideration of this amendment is now respectfully requested.

Rejection - 35 U.S.C. § 112, Second Paragraph

Claims 1 and 8 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. These rejections are moot in view of the amendment of these claims.

Rejection - 35 U.S.C. § 103

Claims 1-3, 5-10, and 12-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaneyasu et al., JP 09271786 A, in view of Highfill, U.S. Patent No. 4,962,728 and Bender et al., U.S. Patent No. 5,262,186. The Applicants submit that this rejection may be withdrawn in view of the amendments above. This rejection would not apply to the present claims which are directed to obtaining the internal organs or adnexa, guts, or ovaries, eggs or milt, of live fish. There is no suggestion in the cited prior art for methods for obtaining such products from live fish which have been treated by the claimed process.

The present invention is characterized in that living fish is treated with an aqueous alkaline solution while they are alive or they are allowed to swim in the solution and also washed with water or neutralized while they are alive, e.g., while they are allowed to swim.

When the fish are kept alive in the alkaline solution, the live fish takes up or swallows the alkaline solution so that the alkaline solution reaches up to the inside organs and adnexa of the fish, and destroys or inhibits the growth of germs in the internal organs and adnexa of the fish which ordinarily would lead to rapid rotting of these organs or adnexa after the death of the fish. The fresh organs are then removed from the live fish without spoilage or rotting caused by microorganisms after death of the fish. However, the cited references neither disclose nor suggest these features of the present invention.

Kaneyasu, et al., JP 09271786 A is directed to improving the living environment of fish and aquatic animals such as an inland sea, lake, pond, river or feeding tank by adding a pH regulator. There is no suggestion in this document for a method of obtaining the fresh internal organs or adnexa of living fish free of spoilage and thus has no disclosure at all concerning the washing or neutralization of the fish treated with the aqueous alkaline solution. Moreover, the present inventor found that the fish can be alive for a while even in such an alkaline solution having a pH higher than that of sea water.

More specifically, Kaneyasu is directed to resolving problems associated with the pollutants accumulated in the seawater or the eutrophication in the seawater, which leads to the deterioration of the water quality or bottom quality of the seawater area. Therefore, in Kaneyasu the pH of the seawater is increased up to around the pH of 8.2, that is the pH of the usual seawater. This is quite distinct from the present invention (see claims 17, 30 and 31), where fish are kept alive in an alkaline solution at a pH of 8.5 to 13.

Highfill, U. S. Patent No. 4,962,728 (D2), also relates to a process for maintaining live fish as fish bait or in a live well. The Highfill process is designed to keep fish alive as long as possible. Therefore, the pH used in Highfill should be around the pH of the usual seawater at most.

In addition, Highfill neither discloses nor suggests the treatment of living fish in order to obtain the internal organs or adnexa from the fresh fish free from spoilage or rotting caused by microorganisms after the death of the fish, and therefore has no disclosure at all concerning the washing or neutralization of the fish treated with the aqueous alkaline solution.

Bender, et al., U.S. Patent No. 5,262,186 (D3), relates to the treatment of raw fish (flesh) prepared from viscerated and often filleted fish. This document is concerned with processed fish flesh which may have become contaminated with bacteria (col. 1, lines 15-20) during visceration or filleting. This patent is only directed to treatment of the fish flesh itself and does not relate to the treatment of a whole living fish in order to obtain fresh, unspoiled internal organs or adnexa from the live fish. For example, Bender states that the fish is treated with the solution, after the fish is viscerated (e.g. column 3, lines 40-49; column 4, lines 4-6; and column 4, lines 65-68). Furthermore, especially with respect to claim 18, the invention of Bender differs as it also resides in the finding that among the various phosphates, a specific orthophosphate which is useful for retarding bacteria contamination on fish meat. This patent neither discloses nor suggests that the specific alkali solutions of claim 18 are also useful for this purpose. Accordingly, since Bender does not disclose or suggest treating live fish with an alkaline solution at a pH above that of sea water, washing and isolating the internal organs or adnexa in fresh form, nor the specific alkali solutions now recited by the independent claims, the Applicants respectfully submit that this rejection would not apply to the present claims.

Rejection - 35 U.S.C. § 103

Claims 15 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaneyasu et al., JP 09271786 A, in view of Bender et al., U.S. Patent No. 5,262,186, as

applied to Claim 8 above, and further in view of Furuta et al., JP 56148260 A. The Applicants respectfully submit that this rejection would not apply to the present claims for the following reasons:

The primary references have been addressed in the response to the obviousness rejection above.

Furuta et al., JP 56148260 A, relates to the treatment of the roe or eggs of salmon or trout, for example, to the removal of the ovarian membrane from salmon roe (eggs) by hot water or steam treatment, and subsequent pickling. However, Furuta neither discloses nor suggests treating live fish (salmon or trout) with an alkaline solution and subsequent washing of the live fish, prior to separation of the roe or eggs. Accordingly, neither Furuta, nor the primary references disclose the process of the invention involving alkaline treatment of whole fish at a pH above that of sea water, washing or neutralization of whole fish, and separation of the internal organs or adnexa from live fish. Accordingly, the Applicants respectfully submit that this rejection would not apply to the present claims.

CONCLUSION

In view of the above amendments and remarks, the Applicants respectfully submit that this application is now in condition for allowance. Early notification to that effect is respectfully requested.


Respectfully submitted,

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